

Notice of Allowability

Application No.

10/064,529

Applicant(s)

SPEIER, PETER

Examiner

Brij B Shrivastav

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to April 16, 2004.
2. ☒ The allowed claim(s) is/are 1-42.
3. ☒ The drawings filed on 26 August 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>March 5, 2004</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

1. Applicant's amendment dated April 16, 2004 has been received and entered. Pending claims in the application are 1-42, which are in allowable condition.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance:

Claims 1-15 are allowed, as the prior art of record does not teach or suggest a nuclear magnetic resonance instrument, including a housing adapted to move in a wellbore drilled through earth formation with means for including a radio frequency magnetic field, according to a first and a second substantially simultaneous pulse sequences associated with the first and the second nucleus, in combination with the remaining limitations of the claims.

Claims 16-18 are allowed, as the prior art of record does not teach or suggest a nuclear magnetic resonance instrument, including a housing adapted to move in a wellbore drilled through earth formation with means for including, substantially simultaneous with the first radio frequency magnetic field, a second radio frequency magnetic field in the zone of interest at a second frequency, the second frequency being a resonance frequency of a second nucleus at the selected magnetic field strength, in combination with the remaining limitations of the claims.

Claims 19-21 are allowed, as the prior art of record does not teach or suggest a nuclear magnetic resonance instrument, including a housing adapted to move in a wellbore drilled through earth formation, including means for producing a polarization transfer pulse sequence comprising a first pulse sequence associated with the first nucleus and a substantially simultaneous second pulse sequence associated with a second nucleus, in combination with the remaining limitations of the claims.

Claims 22-41 are allowed, as the prior art of record does not teach or suggest a method for determining a formation fluid property using a nuclear magnetic resonance instrument in a wellbore, wherein nuclear magnetic resonance measurements are acquired to derive J coupling information, in combination with the remaining limitations of the claims.

Claim 42 is allowed, as the prior art of record does not teach or suggest a method for estimating a volume fraction of oils in earth formation fluids, including acquiring nuclear magnetic resonance measurements having carbon-hydrogen J coupling information, in combination with the remaining limitations of the claim.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brij B Shrivastav whose telephone number is 571-272-2250. The examiner can normally be reached on 7 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bbs

May 31, 2004



Brij B. Shrivastav

Patent Examiner